# Rhodora

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## THE MAINE COAST AT CUTLER.

G. G. Kennedy.

The flora of Mt. Desert has been so well described in Rand & Redfield's volume that the list there given might be considered sufficient for the whole seashore of Maine, but to the eastward lies an almost unexplored territory with a more boreal flora and cold winds and waters.

The innumerable islands, bays and rivers of the Maine coast do not extend eastward beyond Machias Bay, and from this point to Quoddy Head, a distance of about 25 miles, we have a bold shore with a full east exposure, open ocean, treacherous currents, and much fog. It is the entrance to the Bay of Fundy and from fifteen to twenty miles off shore lies Grand Manan Island with its cliffs and fog. The Bay of Fundy, some sixty miles wide at its mouth, extends one hundred and fifty miles northeasterly, and uninfluenced by warmer currents from the southern ocean areas, maintains its well-earned reputation as a cold wet sea.

This twenty-five miles of coast is shared by three townships, Cutler, Trescott and Lubec, or to take the shore designations proper for such a sea-faring community, Little River, Bailey's Mistake and Quoddy Head; Lubec village lying on the narrow strait north of Quoddy Head.

A short account of the flora of the region as observed during three days spent in July last at Cutler on Little River, may be interesting to the readers of Rhodora.

Little River is a small fiord just east of Little Machias Bay with a sailing area of less that a mile from Little River Light. Its situation is 44° 40′ N. and 67° 15′ W. of Greenwich. The village of Cutler is on this fiord and its picturesque beauty has been described in several magazine articles on the coast of Maine.

My first walk from the hotel towards the shore at Schooner Head showed how northern the vegetation looked and how much it reminded one of the Lower St. Lawrence at the Saguenay region. *Abies balsamea*, Miller, and *Picea alba*, Link, fruiting when only 10 to 15 ft. high grow quite to the water's edge; one group of white spruces from which I collected the seashore moss *Ulota phyllantha*, Brid., stretched its branches over water many feet deep which beat about the base of the cliff, wetting the halophilous moss, *Grimmia maritima*, Turner, with its spray, while *Empetrum nigrum*, L., in deep cushions and *Lonicera caerulea*, L., in breast-high bushes covered the ground. On the rocky beach grew another Saguenay-Tadousac plant, *Iris Hookeri*, Penny, cited in Britton's new Manual as found on "River shores Newfoundland to Quebec and Maine"; but I think Prof. Macoun is right when he says in Cat. Can. Plants, Vol. II. p. 25, "Apparently peculiar to the sea coast and always found within the limit of the spray from the sea." All Macoun's stations are marine and this station at Cutler extends its limits from the Gulf of St. Lawrence around the coast to the United States. Fernald's No. 147 Maine Flora on which perhaps the Maine citation for *I. Hookeri* is founded is a plant with a very small pod but the beak of true *I. versicolor*.

On this rocky beach grew also a tall, slender dark green *Sagina nodosa*, Fenzl, which on examination proved to be different from our usual New England plant in being quite glabrous, and thus exactly like the Tadousac plant. It is the true *Sagina nodosa* of Europe, and all our other New England specimens appear to be the var. *pubescens* of Koch, while all the specimens in the Gray Herbarium from north of the United States, including one from Isle Royale, Lake Superior, are the true *S. nodosa*. The var. *pubescens* I found also at Cutler and perhaps the two forms on the coast do not intrude on each other's territory, as the glabrous plant has not before this been reported from New England, while the var. *pubescens*, though cited as rare in the Mt. Desert Flora, is quite common at Biddeford Pool, Me., and other points on the coast south to Massachusetts.

The seashore Plantagos are sufficiently troublesome, but one little Tadousac plant attracted my notice immediately — the *Plantago borealis*, Lange, described in Flora Danica, Vol. XVI. t. 2707, and recorded from Greenland and Iceland and extreme northern Norway. It does not appear to have been separated by Macoun in his Cata-

logue of Canadian plants, but in Contributions from the Herbarium of the Geological Survey of Canada, xi. (reprinted from Can. Rec. Sci. 1897) 475, Mr. James M. Macoun refers various Labrador and Hudson Bay specimens to *P. borealis* although no mention is made of any Gulf of St. Lawrence specimens. I collected it at Tadousac in Aug., 1892, and the Gray Herbarium has it from various stations in Labrador, but not from the United States.

The *Plantago decipiens*, Barneoud, from Cutler exactly matches the original description in being extremely woolly on the scape just below the inflorescence and somewhat woolly at base, with flat linear leaves about equalling the scapes. The varying forms of *Plantago decipiens* and *P. maritima* on the New England coast should be carefully collected for future study.

While coming from the shore one evening we crossed a pasture and in a wet place under the alders collected a *Hieracium* new to me which proves to be *H. floribundum*, Wimmer and Grabouski, a well known species of central Europe. This plant is new to the United States, and doubtless an importation from Europe, though Cutler is not exactly a port of entry; yet the plant was growing quite luxuriantly under the alder bushes.

In a wet place near the shore but not in salt marsh grew a very robust *Poa* about 3 dm. high and with a culm 2 mm. or more thick. I thought I had *Poa alpina*, L., but it proved to be *P. pratensis*, L., var. *domestica*, Laestad.: the arctic *Poa pratensis* has five varieties affixed to it in Lange's Greenland Flora and the Cutler specimen exactly matches authentic Greenland and Iceland specimens in the Gray Herbarium of var. *domestica*. It has a Briza-like appearance from the large spreading spikelets and as they are of a violet green color the plant is quite striking. Lange says of it, "not unlike *Poa alpina*."

A curious feature of the rocky shore at Corbett's Point is a series of small basins in the ledgy rocks holding fresh spring water: Mr. Corbett told us that during the extreme drought of the summer of 1900 he found his cow never cared for water on her return from pasture, although her usual drinking place was absolutely dry. Out of curiosity he one day followed her to the pasture and saw her go to the shore and drink from one of these basins, and this she continued to do all summer. These basins are of different sizes, from an area of two square feet to only a few inches, and a dozen or more

in number. They all contain the larvae of fresh water insects and thus differ from the similar salt water basins on the same rocks in which are various seaweeds, and yet both sets of basins are only just above high water mark and must be often washed by the sea spray. There are no higher springs visible from which their supply could be explained, and yet each basin has a gentle weeping outlet, while the basins are not all on the same level. In one of these little outlets I found the specimen of *Sagina nodosa*, var. *pubescens*, also the true *Galium trifidum*, L., with very thick leathery leaves, and *Euphrasia Randii*, Robinson, the latter having previously been found only on the islands south of Mt. Desert; while in a mossy place in the woods I collected *Euphrasia Americana*, Wettst. (See RHODORA III. pp. 273 and 274.)

We remained at Cutler in a quiet summer hotel from Saturday noon, July 13th, to Tuesday noon, July 16th. Although not on a botanical trip I had my press along, and the few plants I brought home may give some idea of what might be found by a collector who should devote himself to this wild and unexplored shore.

## NOTEWORTHY PLANTS OF SOUTHEASTERN CONNECTICUT, — III.

C. B. GRAVES.

(For previous articles of this series, see RHODORA, I, 67; III, 63.)

I AM indebted to Prof. F. Lamson-Scribner and Mr. E. D. Merrill for verifying the grasses mentioned below, and to Dr. B. L. Robinson and Mr. M. L. Fernald for assistance upon some of the other species. Those marked with one star are now, I believe, for the first time listed from Connecticut. Those with two stars have not, so far as I am aware, been reported from New England before.

* *Paspalum Muhlenbergii* Nash. Open sandy soil, Poquonnoc Plain, Groton.

** *Panicum stipitatum* Nash. Discovered by Mr. C. H. Bissell and the writer at Selden's Cove in Lyme, Aug., 1901.

* *Agrostis coarctata* Ehrh. In wet sand, edges of salt marsh, Groton. Foliage of growing plant bluish green.

* *Puccinellia angustata* (R. Br.) Scribn. Blackhall River, Old Lyme, June, 1900, growing in tufts in the narrow border of salt marsh. A northern species not hitherto reported, I believe, south of the coast of Maine.

* *Spartina juncea* (Michx.) Willd. (*S. caespitosa* A. A. Eaton). Edge of salt marsh, Groton.

* *Elymus hirsutiglumis* Scribn. Banks of Connecticut River near Deep River.

* *Elymus robustus* Scribn. & Sm. Frequent in sandy soils, valleys of Thames and Shetucket Rivers.

* *Eleocharis palustris* var. *vigens* Bailey. In shallow water, Dodge's Pond, East Lyme. This form, long known in Maine and Vermont, has not to my knowledge been recorded from any other New England state.

** *Carex nigro-marginata* Schwein. Rare among loose rocks, Lantern Hill, North Stonington.

* *Juncus tenuis* var. *anthelatus* Wiegand. Not rare in sandy soil, New London and Groton.

** *Juncus brachycarpus* Engelm. Near Ocean Beach, New London, in partially reclaimed salt marsh.

*Desmodium humifusum* Beck. This species was reported by the writer and listed in the "Additions" to Bishop's Catalogue of Conn. Plants, 1898, but, as it has seemed since, upon insufficient grounds. It was therefore omitted from the last edition of the Catalogue, 1901. The collection this past season of a fuller series of more mature specimens and comparison with material in the Gray Herbarium leave no doubt of the correctness of the original determination. The species should accordingly be restored to its place in the Connecticut Flora. The specimens cited come from a very small patch in dry woodland near this city, which is the only station known to me. It is apparently one of the rarest of the Desmodiums.

* *Utricularia resupinata* B. D. Greene. This delicate little bladderwort was discovered last July growing sparingly along the margin of one of the ponds in East Lyme.

* *Utricularia biflora* Lam. In shallow water, pond on Poquonnoc Plain, Groton.

* *Nymphaea reniformis* DC. (*N. tuberosa* Paine). Still deep water of Selden's Cove, Lyme. Discovered in Aug., 1901, by

Mr. C. H. Bissell and the writer. This species has not apparently been found before in New England outside of Vermont.

* *Spiraea prunifolia* Sieb. & Zucc. Escaped and established by roadsides at several points in Groton and Waterford. Seen only in the double-flowered form.

*Spiraea Japonica* L. f. Well established along a highway at one point in Groton.

* *Solanum Lycopersicum* L. The common tomato should be included in the Conn. Flora. It is not rare as an escape on shores. Last August many plants were noticed in the tangle of vegetation on a low sandy island at Selden's Cove, Lyme.

New London, Connecticut.

---

The Dwarf Mistletoe at Bradford, Vermont. — While driving on June 26 along a country road about five miles west of Bradford I was surprised, on looking up, to see two large "witches' brooms" near the top of a tall spruce (*Picea rubra*). Investigation showed that the dwarf mistletoe, *Arceuthobium pusillum*, was present in abundance. I had been looking for the plant, but had not expected to find it in that locality, as it was on a dry hillside distant from any water-course. The brooms were large, one being two and one-half feet in diameter, the other smaller. I saw no other specimens near by, nor did I see another spruce, but being on a hunt for orchids, did not make a thorough search. — Alice E. Bacon, Bradford, Vermont.

---

Lechea major in New Hampshire. — On noticing by the list of *Cistaceae*, published in Rhodora, i, 212, that there had been no record of *Lechea major* in New Hampshire, Mr. John A. Wheeler has kindly sent to the Gray Herbarium and the Herbarium of the New England Botanical Club some excellent specimens of that species, which he had found growing in pastures near Milford, New Hampshire. Mr. Wheeler writes that the plant was observed at two stations about two miles apart. From long familiarity with the flora of the region, Mr. Wheeler believes these hitherto unnoticed colonies are of recent origin. — B. L. Robinson.

# A LIST OF BRYOPHYTES FROM THE MT. GREYLOCK REGION.

A. LeRoy Andrews.

Our knowledge of the distribution of bryophytes depends upon collections made at points so widely separated and is, therefore, of so general a nature as compared with that of the higher orders of plant life that a list from a limited region may furnish something of interest in the way of a comparison and possibly fill desirably an occasional gap. From this standpoint the results of collecting done upon Mt. Greylock during the past summer seem worthy of passing note. The specimens were taken from the northern portion of the mountain-mass, at various points in the townships of Williamstown, New Ashford, North Adams and Adams, and will give at least a fair idea of the prevailing species. For the sake of definiteness I will confine the list to the mountain region, from brook-beds at base to its summit.

Locally its mosses and hepatics are of great interest as occurring, particularly in higher altitudes, in so many species not found elsewhere in the vicinity, and several will be noticed to be uncommon in the state. The mountain lacks alpine conditions and therefore alpine species. Subalpine sorts are, however, well-represented, the flora on the whole, as may be seen by comparison with the Vermont lists, resembling in a marked degree that of the Green Mountain region of that state.

Comparatively little collecting has been done in western Massachusetts, especially in Berkshire County. A short list of Berkshire bryophytes forms a part of Chester Dewey's plant-list for the county in the History of Berkshire County published in 1828. I know of no later attempt to treat systematically either the mosses or hepatics of the region. The same list was incorporated in Prof. Hitchcock's Geological Report of Massachusetts published in 1835.

The nomenclature of the following list follows as closely as possible that of Lesquereux and James' Manual and Prof. Underwood's treatment of Hepatics in 6th edition of Gray's Manual.

Musci.

*Anomodon apiculatus*, Br. & Sch.
*A. attenuatus*, (Schreb.) Hueben.
*Atrichum angustatum*, Br. & Sch.
*A. undulatum*, Beauv.
*Aulacomnium heterostichum*, Br. & Sch.
*Barbula unguiculata*, (Huds.) Hedw.
*Bartramia pomiformis*, (L.) Hedw.
*Brachythecium reflexum*, (Starke) Br. & Sch.
*B. salebrosum*, (Hoffm.) Br. & Sch.
*B. Starkei*, (Brid.) Br. & Sch.
*Bryum argenteum*, L.
*B. bimum*, Schreb.
*B. caespiticium*, L.
*B. roseum*, Schreb.
*Ceratodon purpureus*, (L.) Brid.
*Dicranella heteromalla*, Schimp.
*D. varia*, Schimp.
*Dicranum fuscescens*, Turn.
*D. longifolium*, Ehrh.
*D. scoparium*, (L.) Hedw.
*Diphyscium foliosum*, Mohr.
*Drummondia clavellata*, Hook.
*Fissidens adiantoides*, (L.) Hedw.
*F. decipiens*, De Not.
*Funaria hygrometrica*, (L.) Sibth.
*Hedwigia ciliata*, Ehrh.
*Hylocomium splendens*, Hedw.
*H. triquetrum*, (L.) Br. & Sch.
*Hypnum crista-castrensis*, L.
*H. pratense*, Koch.
*H. Schreberi*, Willd.
*H. uncinatum*, Hedw.
*Leptobryum pyriforme*, (L.) Wils.
*Leucobryum vulgare*, Hampe.
*Leucodon sciuroides*, Schwaegr.
*Mnium affine*, Bland.
*M. cuspidatum*, Hedw.
*M. punctatum*, L.
*M. punctatum elatum*, Schimp.
*M. serratum*, Laich.
*M. stellare*, Reich.
*Neckera pennata*, (L.) Hedw.
*Orthotrichum strangulatum*, Beauv.
*Philonotis fontana*, (L.) Brid.
*Physcomitrium turbinatum*, (Mx.) Brid.
*Plagiothecium denticulatum*, (L.) Br. & Sch.
*P. turfaceum*, Lindb.
*Pogonatum alpinum*, (L.) Roehl.
*P. urnigerum*, (L.) Beauv.
*Polytrichum commune*, L.
*P. juniperinum*, Willd.
*P. Ohioense*, Ren. & Card.
*P. piliferum*, Schreb.
*Pylaisia intricata*, (Hedw.) Br. & Sch.
*Racomitrium aciculare*, Brid.
*Sphagnum acutifolium*, Ehrh.
*S. cymbifolium*, Ehrh.
*S. squarrosum*, Pers.
*Tetraphis pellucida*, Hedw.
*Thuidium delicatulum*, (L.) Mitt.
*Ulota crispa*, Brid.
*U. crispula*, Brid.
*U. Hutchinsiae*, Schimp.
*U. Ludwigii*, Brid.
*Webera elongata*, Schwaegr.
*W. nutans*, Hedw.

Hepaticae.

*Bazzania trilobata*, S. F. Gray.
*Blasia pusilla*, L.
*Blepharostoma trichophyllum*, Dumort.
*Chiloscyphus polyanthos*, Corda.
*Conocephalus conicus*, Dumort.
*Fimbriaria tenella*, Nees.
*Frullania Asagrayana*, Mont.
*F. Eboracensis*, Lehm.
*Jungermannia barbata*, Schreb.
*Lepidozia reptans*, Dumort.
*Liochlaena lanceolata*, Nees.
*Lophocolea heterophylla*, Nees.
*Marchantia polymorpha*, L.
*Metzgeria conjugata*, Lindb.
*Porella platyphylla*, Lindb.
*Preissia commutata*, Nees.
*Ptilidium ciliare*, Nees.
*Scapania undulata*, Dumort.

A few more species were found but as identification, from imperfection of specimen or other reason, was not certain, they are omitted for the present. Dr. Grout has called attention (Rhodora I, 55) to

the fact that *Leucodon sciuroides* is probably more common in New England than had been supposed and it has been recently found in Maine, New Hampshire and Vermont, though not before, so far as I know, from Massachusetts. *Racomitrium aciculare*, *Pogonatum alpinum* and *urnigerum* and some of the others are not of common occurrence in the state. *Scapania undulata* presented a purplish form possibly corresponding with var. *purpurea*, Nees. The list is by no means an exhaustive one but shows something of the possibilities of more careful observation and study in a locality which has been somewhat neglected.

Mt. Pleasant, Pennsylvania.

## SOME PLANTS FROM PRINCE EDWARD ISLAND.

J. R. Churchill.

It would be hard to tell why Prince Edward Island was finally selected for our midsummer migration in 1901. The attractions were not exclusively botanical. Indeed I had been warned that the whole island was cleared and under cultivation, apparently to such an extent that there was no room there for wild flowers; and it was quite plain that my hungry botany-box must be filled with those plants only which, whether wanted or not, follow mankind and intrude upon his fields and gardens. I became quite convinced that my botanical fare would be limited to weeds and to the bold denizens of hedgerows, cultivated ground, roadsides and waste places. But there were alluring reports of a cool dry and bracing climate, of a most comfortable boarding-house at Tracadie Beach on the North shore, of freedom from fogs, and of the salt sea pleasantly warmed for comfortable bathing upon the sandy shoals in the bright sun.

Now even a botanist loves to bathe, provided the water is not too frigid; and he is not superior to the seductions of a good table and house; and I reasoned that even weeds, if new and fresh, are attractive and interesting, and moreover are essential to the complete furnishing of every well-regulated herbarium.

And so it came about that, on the evening of July 19, I landed at Summerside, and put up for two days at the Clifton Hotel, the best of the three modest inns of the quaint little village.

Prince Edward Island is 130 miles long; and the extreme breadth is 34 miles. It contains over 2100 square miles, and it lies between the 46th and 47th degrees of North latitude; which is about the same as Aroostook County in Maine. In altitude the island nowhere exceeds 500 feet, its bare rolling surface reminding one strongly of our Nantucket Island; although the great fields are more fertile and cultivated. Strikingly alike also are the two ancient seaports, Summerside and Nantucket-town, with their primitive weather-beaten buildings and quiet country streets.

It was quite in keeping with the predictions that among the first plants to attract attention were two weeds which grew along the plank sidewalks of these well kept streets. Our common Tall Buttercup (*Ranunculus acris*, L.) presented here invariably so peculiar an appearance, that I was quite at a loss to name it, until the recent note of Mr. Fernald (Rhodora, I, 227. Dec. 1899) came to mind; and it was then plain that this weed was *R. acris*, var. *Steveni*, Lange, and that I was now in the latitude where this broad-leaved form should prevail, as stated in Mr. Fernald's account.

The second gutter-plant was the Garden Cress or Peppergrass of Europe (*Lepidium sativum*, L.). It is much taller and more slender than our three common Lepidiums, and the pod is larger. Here, as in England, it is merely a garden escape and not indigenous.

At the eastern end of the village there was a considerable colony of *Cotula coronopifolia*, L. This pretty plant is botanically a near relative of our common Tansy, and the golden-yellow rayless flowers of both are so much alike that, if it were frequent enough to have a common name, it would or might popularly and appropriately be called the Dwarf Tansy. It was growing in deep soft mud by the edge of the marsh, and though low, its bright golden Tansy-like flowers made the plant quite conspicuous. Its history is interesting. South Africa is its home, but like Lord Bateman, it seems "determined to go abroad;—to go strange countries for to see." It was collected on salt marshes in Chelsea, Massachusetts, by Herbert A. Young in 1879, and by C. E. Perkins in 1880; and these specimens are in the Gray herbarium. Yet it was not considered entitled to mention in the Manual; nor is it recorded in Britton and Brown's Flora. Before 1884 it had reached California, and in the Synoptical Flora of North America (vol i. pt. 2, p. 366) it is said to be "thoroughly established on the [Pacific] coast — and on some watercourses in the interior: a rare ballast weed on the Atlantic coast."

In Part II of the Catalogue of Canadian Plants, by John Macoun (also published in 1884), on page 285, under "Un-named Species of Compositae," is the following note:—"(No. 1331.) In August, 1883, Mr. James Fletcher picked up in the neighborhood of Victoria, a small rayless composite, which at first sight might be referred to *Matricaria discoidea*, but which differs very materially from that species in many respects. It is evidently a denizen of ditches and muddy places, but the specimens are too few and incomplete for identification. Lower leaves laciniate, upper ones much less so. The whole plant quite smooth and branching at almost every leaf which sheaths both stem and branch." Afterward in 1886 (Part III, p. 552), *Cotula coronopifolia* is recorded as "abundant for some distance along a gutter in Fort Street, Victoria, Vancouver Island, 1885 (Fletcher). This is the plant described but not named under No. 1331."

These are the only records of its occurrence that I have been able to find; and it seems remarkable that a weed like this, with both disposition and ability to travel such great distances, should not establish itself more firmly and abundantly in its new homes.

The rest of my time on the island was spent at the Acadia hotel, Tracadie Beach, on the Gulf of Saint Lawrence, about fifteen miles across the island from Charlottetown the metropolis, and more than fifty miles from Summerside. The journey back and forth between these places, by the little narrow-guage railroad, gave a good opportunity to verify the bucolic account of this prosperous land, of which it has been said "It is one rich rolling arable farm, from Cape East clear up to Cape North,—a warm and sandy land, in a genial climate, without fogs." Except at Summerside, and a day's trip made to Charlottetown, all my collecting was done within five miles of Tracadie Beach.

Between the hotel at the edge of the sand-dunes, and the sea, stretched a low level strand thinly carpeted with *Festuca ovina; Agrostis alba; Poa glumaris* (?); *Carex silicea; Scirpus pungens; Juncus Balticus* (a slender and peculiar form); *Salsola Kali; Polygonum Raii; Limosella aquatica*, var. *tenuifolia; Suaeda* sp.?; *Glaux maritima; Potentilla Anserina; Spergularia borealis; Ranunculus Cymbalaria*, and other maritime plants. A step hence to the sand-dunes disclosed another series of plants. There was the familiar and characteristic Sea Sand Reed (*Ammophila*); and three woody plants

of very similar habit trailed in graceful prostrate sprays over the shifting sands. These were two Junipers; *J. communis*, var. *Canadensis*, and *J. Sabina* var. *procumbens*, and the Crowberry (*Empetrum*). With them in the dry sand were *Hudsonia tomentosa; Rosa lucida*, var.; *Vaccinium Vitis-Idaea; Arctostaphylos*, and *Smilacina stellata*, — names, many of them, more suggestive of the mountains than of the seashore.

*Senecio sylvaticus* was common, especially along the shores. Its handsome relative, the Tansy Ragwort, or "Stinking Willie" as it is called in Scotland (*Senecio Jacobaea*, L.), is now vigorously asserting itself here and traveling rapidly and extensively southward through the Maritime Provinces. Yet in the Synoptical Flora, in 1884, it is dismissed in a single line, as "with some other species, occasionally occurring as ballast waifs." I had seen and collected the bright golden flowers about the railroad stations as I came through New Brunswick, but I learned later that, like many a fine looking fellow, his reputation is very bad. The charges against the plant as stated by Mr. Lawrence W. Watson, a botanist of Charlottetown, in an article contributed by him to a local publication, and entitled "Wolves in Sheep's Clothing," are briefly that, as a pernicious and aggressive weed, it is an enemy to the farmer; second, that it is largely responsible for asthma and hay fever; and finally that it was the cause of a fatal epidemic which recently prevailed extensively among the cattle of Pictou County, Nova Scotia. With reference to the last charge there was, I think, an official investigation, but the evidence of guilt was not clear. So I was pleased, considering its good looks and our short acquaintance, to discredit these reports, and aquit it of all but the ordinary vices of a vagrant weed.

Two other introduced plants quite new to me, both also with weedy tendencies, were frequent about Tracadie. One, *Mentha rubra*, Hudson, is very similar to our only native Mint, *M. Canadensis*, L.; but the flowers are larger and reddish-pink, and there are other distinctions in the character of the pubescence and the leaves. The plant is handsome and readily distinguished in the field. The other plant, *Gnaphalium sylvaticum*, one of the Everlastings, grew about the edges of cultivated fields and roadsides. This weed seems not only to thrive under cultivation, but to improve, in appearance at least, under the severe and often destructive processes of the botanist. Like all the Everlastings, it adapts itself readily to pressing, drying, poison-

ing and mounting; and makes perfect and enduring specimens. As it was only recently discovered this side of the border, in Maine, it has not been admitted to the Manual.

Perhaps I ought to express the hope that my readers will not assume, in view of the excessive attention thus far lavished here upon the mere weeds, that the Island was altogether "an unweeded garden, that grows to seed." There was many a little untamed bog, or copse, or shore, which well repaid search for the plants which belong there; the shy natives in their own proper homes; and my collections included many such species. Brief mention of two only of these, which had also the charm of novelty, must suffice.

The Dwarf Mistletoe (*Arceuthobium pusillum*) has become well known only within comparatively few years, and though it is probably widely distributed, yet it is still sufficiently rare or local to compel attention to each newly discovered station. So I was pleased and perhaps pleasantly excited when I discovered the tiny parasite growing in abundance on the Black Spruce, in a sphagnum bog just behind the broad sandy beach at Tracadie. Its history, appearance, habits and distribution were so fully discussed in this Journal (Vol. II, pp. 1 to 11, and p. 221,) that but little beyond this record of its occurrence here need be given. It should be said however that, while the White Spruce and the Larch were both abundant in the neighborhood, yet I did not find the Mistletoe upon them. I was also impressed with the almost constant association, upon the same tree, of the Mistletoe with *Peridermium abietinum*, the fungus referred to by Prof. Arthur (RHODORA, II, 223); and the yellow sprays of the spruce, with leaves infested and discolored by the fungus, were the surest guides to the colonies of the flowering parasite upon the branches. I find no definite record of the occurrence anywhere in Canada of the Dwarf Mistletoe.

The second native and notable plant was a *Tillaea*, which I found in the wet sandy margin of Campbell's Pond, which is separated from the ocean by the same broad beach at Tracadie. Though the station was far north of its known range, it was of course assumed to be *Tillaea simplex*, and it was only after careful examination since my return, that Mr. Fernald identified it with *T. Vaillantii*, Willd., of Africa and Central Europe. The little plant, less than an inch high, grows in moss-like tufts like its congener *T. aquatica*, L. (*T. simplex*, Nutt.), from which it differs principally in the elongated pedicels of

some of the flowers. This species has not been reported from North America; but the "*Tillaea simplex*" mentioned in Mr. J. M. Macoun's Contributions to Canadian Botany[1] as "new to Canada," and collected also on Prince Edward Island, may be *T. Vaillantii*.

August sixth, the last day of my stay, I was joined by Mr. Watson from Charlottetown; and we rambled and collected together, enjoying the companionship and alike intent upon a wholesome and congenial pursuit. Thus pleasantly ended last summer's pleasant sojourn in a pleasant country! The warnings that were given to deter us were indeed verified, that the island was a garden; but it was also demonstrated that this garden contains many beds of flowers and many species which the gardener does not know are there, and which may well attract other botanists, as they did me, to the delightful summer observation and collection of them, and the critical and reminiscent winter study that follows of their forms and habits, their places, and their names.

## NOTES ON THE FLORA OF CONNECTICUT.

A. W. Driggs.

In looking over the pages of Mr. Bishop's recent list of Connecticut plants, I find several I have reported in years past that need correction, and some additions that may be worthy of note at this time.

*Botrychium lanceolatum*, Angstroem (West Hartford) proves to be *B. matricariaefolium*, Braun, as noted in Rhodora, iii. 36.

*Onoclea sensibilis*, L., forma *obtusilobata* is noticeable to a considerable extent throughout the northern part of the state. It seems to be frequent in pastures, along roadsides where cattle have occasionally grazed, and I have found it about railroad embankments where bushes have been cut.

*Woodwardia angustifolia*, Smith, reported from East Hartford in the list of 1895, was stricken out in the Additions and Corrections as I was unable to verify the report. It has since been discovered in low woods in the central part of the town. This station is some fifty miles inland. *Lygodium palmatum*, Swtz. also finds its home here.

[1] No. V, p. 11. Reprinted from the Canadian Record of Science; Jan., 1895.

*Juniperus Sabina*, var. *procumbens*, Pursh. (Hartford, Manchester). Originally planted, now evidently growing without cultivation. The same may be said of *Thuya occidentalis*, L. (East Hartford). Aside from the fact that they grow without cultivation they can hardly be considered a part of our general flora.

*Zizia aurea*, Koch. var. *obtusifolia*, Bissell, RHODORA, ii. 225, has been collected in quantity from Canaan and So. Windsor.

*Lactuca hirsuta*, Muhl. Canton, August 14, 1901, along the main road, northern border of Mt. Horr. The species seems to be rare or at least only occasional. This, a single specimen, is the only one I have seen from the central part of the state during the past five years.

*Prenanthes trifoliolata*, Fernald, is being recognized more or less throughout the state. Along the main road from Granby to Simsbury it is noticeable.

*Cassia Chamaecrista*, L. Frequent and often common in towns along the coast, it is noticeably less frequent in the interior of the state. In the Connecticut valley it is well established and plentiful as far northward as Middletown, rather sparingly in Cromwell, Rocky Hill, and South Glastonbury. At Hartford I have seen one colony of few plants.

*Desmodium Canadense*, DC., throughout the central and northern portions of the state is an abundant and prolific wayside plant. I have seen it by the wayside in woods, but very sparingly, rather appearing as though it were not in its right habitat. In Connecticut it certainly has its most striking and handsome growth in strictly open places, preferring dry soil and the *wayside*. I always associate *D. Canadense* with such environment.

*Desmodium canescens*, DC., is more frequent than *D. cuspidatum*, T. & G., growing in abundance about the tobacco fields throughout the Connecticut valley and adjacent hill towns.

*Carex intumescens*, Rudge, although listed from but two stations is well distributed in the Connecticut valley.

*Carex Muhlenbergii*, var. *enervis*, Boott. Stamford, July 24, 1901. Not before reported from the State. Is plentiful along a path leading to the point of land south of the electric light station. Southern New York has been the northern limit according to Britton and Brown.

*Carex mirabilis*, Dewey. Reported from Meriden and Bridgeport. Large quantities were found on the Talcott Mt. Range, town of West Hartford, July 24, 1901.

*Solidago Elliottii*, T. & G. (Glastonbury). There is little doubt that this was a wrong identification. I recorded this species in my note book of 1894, but successive yearly journeys over the same ground (peat bogs along Salmon Brook) failed to yield further plants. I have persisted in my search, however, and was rewarded this year with *S. uliginosa*, Nutt., which has not been recorded before from this part of the state.

*Pyrus arbutifolia*, var. *melanocarpa*, Hook., is found in most of our swamp margins and low woods. That this is a plant not requiring moisture or soil such as is usually associated with it, may be seen from the following:— On the summit of Mt. Riga, Salisbury, growing on thin soil without much apparent moisture, plants were found on August 28, 1901, thriving and fruiting in abundance. They were unusually small, often not over three inches high, but bushy and stout of growth. The fruit did not show that it lacked the nourishment of a meadow soil or loam, being of good size and looking large on such small plants. Mt. Riga is over two thousand feet above sea level, has an exposed summit, portions of which are covered with grasses, also *Potentilla tridentata* and *Quercus ilicifolia*, the latter forming a sort of ring around the flat rocks of the summit, but not tall or plentiful enough to offer shelter to other plant life from the extremes of temperature. The day I was there the soil was almost caked, owing to the radiating heat from the rocks.

*Panicum longifolium*, Torr. Canton, August 14, 1901, vicinity of Mt. Horr. Previously reported in RHODORA iii. 102, from Rhode Island and in i. 67, from Connecticut. The Canton station extends its range well to the north so that the plant may be expected in almost any part of the state.

*Panicum unciphyllum*, Trin. Omitted in the lists but frequent in all open dry fields of the northern part of the state.

*Panicum lanuginosum*, Ell. North Bloomfield, August 2, 1901; open field south of the railroad cut; abundant. In the field it so resembled *P. unciphyllum*, Trin., that I did not recognize the specific difference; yet when pressed and mounted the semblance was decidedly different.

*Panicum dichotomum*, L. Pomfret, July 4, 1901; wood path to the Wolf Den and vicinity; frequent.

*Panicum macrocarpon*, Le Conte. Frequent throughout the northern portions of the state.

*Panicum microcarpon*, Muhl., I have not seen from the state. It is mentioned in the list as "(frequent) — Driggs."

*Panicum sphaerocarpon*, Ell. North Bloomfield, August 2, 1901; open field south of the railroad cut; abundant.

*Eragrostis major*, Host, — a form. New Haven, July 21, 1901; plentiful and noticeable.

*Eragrostis reptans*, Nees. Cromwell, August 19, 1901; pure sand, shores of the Connecticut river; plentiful.

*Eragrostis Purshii*, Schrader. North Bloomfield, August 2, 1901; open dry field south of the railroad cut.

*Glyceria elongata*, Trin. Canton, August 14, 1901; mountain woods about Mt. Horr., few plants.

*Poa debilis*, Torr. Pomfret, July 4, 1901; Wolf Den vicinity; local as far as observed. Listed from but one other place in the state.

*Agrostis intermedia*, Scribn. South Windsor, September 24, 1901; dry open woodlands along the southern border of the town.

*Festuca tenella*, Willd., *Asplenium acrostichoides*, Sw., and *Viola ovata*, Nutt. do not appear in the list, but are a part of our general flora.

*Sagittaria rigida*, Pursh, is abundant in wet sand along the shores of the power house pond at Tariffville.

East Hartford, Connecticut.

[*Carex Muhlenbergii*, var. *enervis*, reported by Mr. Driggs from Stamford, is a rather frequent form of the species in the southern portions of Connectutic, Rhode Island and Massachusetts — Ed.]

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Early Records of Leontodon in America. — In a recent note on the "fall dandelions" of North America (Rhodora, iii. 293) I made the statement that *Leontodon autumnalis* was apparently first recorded as an established plant hereabouts in the 4th edition of Gray's Manual. Mr. T. O. Fuller has kindly called my attention to the fact that the plant was recorded not only in the 1st edition of the Manual (1848) but that by both Bigelow and Pursh it was reported as early as 1814. By what peculiar influence I was led to overlook these definite reports in standard floras and to fix upon the 4th edition of the Manual as the starting point of our records I am now unable to recall. There is, however, no question that the *Apargia autumnalis* of Bigelow and of Pursh is exactly the *Leontodon autumnalis*, L. Bigelow in the 1st edition of Florula Bostoniensis said "This plant, probably an emigrant from Europe, has over-run the vicinity of this

place, and grows in almost every kind of soil. It begins flowering in June and July, and is nearly the last plant that yields to the frosts of November," while Pursh in the same year reported the plant "In pastures on roadsides: New England." Since Pursh's explorations in America were carried on between 1799 and 1811 it is probable that the plant had become introduced very early in the last century. Michaux apparently did not mention the plant in 1803 and in Manasseh Cutler's Account of some of the vegetable productions of this region, published in 1785, there is no mention of any plant which seems satisfactorily referable to *Leontodon autumnalis*.— M. L. Fernald.

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Lonicera sempervirens established in Westford, Massachusetts. — About the first of October it was reported to me that the Trumpet Honeysuckle was growing wild in the south part of the town of Westford. I have been to see the place, and found in a pasture on the Amos Leighton farm three spots where the plant was growing on the eastern slope of the pasture, among berry bushes, sweet fern, blackberry vines, etc. At the first station the Lonicera was abundant and covered a space 15 feet in diameter. At the second there were only a few roots under a walnut tree. Miss Leighton told me she had only seen one blossom here, and that one was white. The third station had five or six strong plants. All the stations were within a quarter of a mile or less from each other, and all a half a mile from the farm house. As I do not find that this Lonicera has been reported from many towns in Middlesex County, its occurrence at Westford may be a matter of interest. — Emily F. Fletcher, Westford, Massachusetts.

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The Handbook of the Trees of New England[1] is a real handbook which will be heartily welcomed by every one who knows or cares to know anything about our trees. Although treating primarily the trees of New England, the book is practically as useful throughout the Northern States and Canada, for it is only an exceptional tree of the North which does not occur within the New England States.

[1] Handbook of the Trees of New England, with Ranges throughout the United States and Canada, by Lorin L. Dame, S. D. and Henry Brooks. Plates from original Drawings by Elizabeth Gleason Bigelow. Boston, Ginn & Company, 1902. Trade edition (cover with gold lettering), $1.50; school edition (black lettering), $1.25.

The narrow pages and cover, and the very clear drawings of branches showing leaves, flower, fruit, winter buds, and all the parts wished for comparison of different species, immediately commend the book for practical use both at home and in the field where it may easily be carried in the pocket.

Eighty-seven species and varieties are figured in full-page plates, and the text accompanying the plates shows much thought in the planning and a vast amount of detailed work in the organizing of notes. The treatment of each species is divided into seven paragraphs discussing separately the Habitat and Range, Habit, Bark, Winter Buds and Leaves, Inflorescence, Fruit, and Horticultural Value.

From a botanist's point of view the first paragraph of each treatment is perhaps most interesting, though all the sections contain points of value. But in the statements of range in New England of the different species we have the most accurate record of distribution yet available, and one based upon the careful observations, not only of the authors, but of many of the most alert botanists of this area who have coöperated very generally with the authors to perfect this portion of the work.

The descriptive paragraphs are very detailed and helpful, yet, in this as in many other books of the present day, one wishes that the leading or diagnostic characters might be emphasized either by italics or by some other device to distinguish them quickly from the purely generic or more trivial matters in the descriptions. In the present book, however, neither this uniformity of type in the descriptions nor the lack of an analytical key are serious hindrances to the practical use of the book. The excellent plates are a sufficient guide to the species, and these may be hastily glanced through with little inconvenience.

The discussion and illustration of species are followed by a glossary, and that by an index to both scientific and colloquial names so thoroughly provided with cross-references as to delight its most exacting user. The sequence of orders followed, it is almost needless to state, is that of Engler & Prantl, while the nomenclature is intelligently conservative. Altogether the book is one to be cordially recommended to all lovers of forests and out-door life, and the authors and publishers are to be congratulated on producing in such convenient form a book which fills so important and unique a place among New England botanical publications.

## UTRICULARIA MINOR IN HOLBROOK, MASSACHUSETTS.

Alice G. Clark.

In the spring of 1898 *Utricularia minor* was found in a small area of meadow-land in Holbrook, Massachusetts. Several specimens were collected at that time and some also in 1899, but although careful search has been made the plant has not been found since.

This Utricularia is one of the most delicate of the genus. None of the plants found reached a height of more than 2.5 inches. The thread-like stems lay flat upon the ground and were hidden in the Sphagnum. The flowers, borne upon slender erect scapes, are very small, being about as large as the flower buds of *Drosera intermedia*, with which the Utricularia grew. The latter was in full bloom even in the shade, while the flowers of Drosera were not yet expanded, and the resemblance of the two plants was so strong that in walking along one found considerable difficulty in distinguishing them.

A specimen was recently sent to Mr. Emile F. Williams, whose reply I quote in part: "Utricularia minor has been one of my desiderata for some years. I did not realize it flowered so early. Your date is May 25. It was reported years ago from Tewksbury, but has not been seen by any one of late years and botanists were beginning to be very sceptical about it in this part of the country."

A note as to the growing conditions of the plant might be of assistance to anyone who should wish to look for it next spring. It is described in Gray's Manual as growing in shallow water, but I have found that during the past two years, when water stood an inch or two deep over this spot in the meadow, no trace of Utricularia could be found. During the preceding two years the seasons had been rather dry so that the meadow in this place was covered with a boggy growth of Sphagnum. There were scattered cranberry vines, *Vaccinium macrocarpon*, also *Drosera rotundifolia* and *D. intermedia*, and the green buds of *Pogonia ophioglossoides*.

Several readers of Rhodora would be interested to know if anyone else has collected *Utricularia minor* recently, and if so under what conditions.

North Easton, Massachusetts.

*Vol. 4. No. 37, including pages 1 to 22, was issued 17 January, 1902.*

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If he has spent hours about home searching for something really new to him, he will start with delight as he sees the fields and banks of blue *Aster Lindleyanus* just above Oldtown, or the clearings crimson in September with the drooping tassels of *Polygonum Careyi*. Or, if he is fortunate enough to get off in May, he will be greeted from recent clearings by fragrant white masses of Sweet Coltsfoot, *Petasites*.

Just beyond Alton, he cannot help longing to explore the indefinite miles of Sphagnum swamp, and if he looks to the West, he will see a beautiful little round pond bordered by gnarled Black Spruces, which he instantly knows must be covered with the tiny Mistletoe, *Arceuthobium pusillum*. Alton bog is well worth exploring, but it is only a small area compared with the hundreds of miles of such country through North-central Maine, and unless one has plenty of time he should save that and his enthusiasm for "farthest north."

If one is bound for Moosehead Lake he will follow the Piscataquis River, where, along the banks, or in the neighboring woods and swamps, he will find at different seasons many good things, among them *Anemone riparia*, *Epilobium palustre*, *Erigeron hyssopifolius*, *Antennaria petaloidea*, *Senecio Balsamitae*, *Vaccinium caespitosum*, *Pyrola asarifolia*, *Primula mistassinica*, *Calypso*, *Allium Schoenoprasum*, *Carex deflexa* and *Lycopodium sabinaefolium*.

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